What happens to the concentrated waste plume



Ken-E Johnson/R6/USEPA/US 02/26/2007 02:32 PM To Ray Leissner/R6/USEPA/US@EPA

CC

bcc

Subject Re: question

Ray - Based on the modeling I've seen, there are still plume cores (center of initial operational plume - typically at 100% waste saturation) intact after 10,000 years. They not necessarily dispersed to some concentration reduction (CRF), but just shifted in the model space or grid. The cores of the plume move over time, but there usually are model cells with 100% waste (or near 100% waste) even at the end of the modeling. A SWIFT model could probably tell you where the plume core would be in the model grid at different times. The core itself would not necessarily be dispersed in the model. Also, no chemical fate is included in SWIFT to account for various degradation processes.

Our analytical model may you where the edge boundary of 100% core would be by using a concentration reduction factor of 1 (no reduction)

Don't know if this answers you question. Here is a run with a CRF of 1 for 500 yrs.



corsicana tech permit calcs 500 years crf of 1.rtf

Ken Johnson, PE Environmental Engineer US EPA R6 - Groundwater/UIC Section 6WQ-SG 1445 Ross Avenue Dallas, Texas 75202-2733

johnson.ken-e@epa.gov 214-665-8473